



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,953	06/29/2001	Nelson Raymond Corby JR.	RD-27700	1038
6147	7590	06/16/2004	EXAMINER	
GENERAL ELECTRIC COMPANY GLOBAL RESEARCH PATENT DOCKET RM. BLDG. K1-4A59 SCHENECTADY, NY 12301-0008			PAIK, STEVE S	
			ART UNIT	PAPER NUMBER
			2876	

DATE MAILED: 06/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/681,953

Applicant(s)

CORBY, NELSON RAYMOND

Examiner

Steven S. Paik

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7,8,10,12-14 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-20 is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,7,10,12,16 and 17 is/are rejected.
- 7) ☒ Claim(s) 3,8,13 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Receipt is acknowledged of the Amendment filed April 6, 2004.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 12-14 and 16 recite the limitation "said first and second codes" in line 10.

There is insufficient antecedent basis for this limitation in the claim. The examiner respectfully requests a precise definition be made to distinctively claim a first and a second code for a human readable and a machine-readable code. Dependent claims 13, 14 and 16 are also rejected due to their dependent relationship with claim 12.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 4, 7, 12 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Miki (JP 405334488A, see computer translated Detailed Description).

Regarding claim 1, Miki discloses a code (HUMARS code) that can be read out by both a human and a machine. The code comprises a two-dimensional redundant bit patterns (small dots in Fig. 1) having an appearance to human vision resembling at least one character (A) and the two-dimensional redundant bit patterns further comprising

Art Unit: 2876

repeating patterns of a bit string forming a respective machine readable code corresponding to said at least one character (paragraph #7).

Regarding claim 2, Miki discloses the system as recited in rejected claim 1 stated above, further comprising a plurality of respective multiplicities of machine-detectable marks (small dots) arranged in accordance with the two dimensional redundant bit patterns ([0014], two-dimensional configuration pattern), each of said respective multiplicity of marks (Fig. 1) having an appearance to human vision resembling a respective character (col. 4, ll. 19-42).

Regarding claim 4, Miki discloses the system as recited in rejected claim 1 stated above, where the machine-detectable marks comprises dots (circles) superimposed on an optically contrasting background (such as paper sheet 12).

Regarding claim 7, Miki discloses a marking system comprising a plurality of human readable characters (such as A, Chinese character 3, a circle, or a line) formed in respective areas (paper) containing arrays (two-dimensional configuration pattern) of machine-detectable marks (small dots), each of said arrays of machine detectable marks arranged in accordance with a two-dimensional redundant bit patterns ([0014]), each of said arrays of machine detectable marks in said respective areas having shapes indicative of said human-readable characters (A), and each of the two-dimensional redundant bit patterns comprising a repeating pattern of a bit string (Each two-dimensional configuration pattern with small dots represent binary value) forming respective machine detectable codes corresponding to said human-readable characters ([0021]).

Regarding claim 12, Miki discloses a system for automatic identification of a part comprising:

Art Unit: 2876

a part comprising a plurality of respective multiplicities of machine-detectable marks (small dots) arranged in accordance with a two-dimensional redundant bit patterns (Each two-dimensional configuration pattern with small dots represent binary value), each of said respective multiplicities of marks having an appearance to human vision resembling a respective character (such as A, Chinese character 3, a circle, or a line), and said two-dimensional redundant bit patterns comprising a repeating pattern of bit string forming respective codes (ID code) corresponding to said reflective character (A);

an imager (optical scanner [0024]-[0026]) for imaging an area of the part occupied by the marks to produce electrical signals having characteristics which allow discrimination between electrical signals derived from imaging of marks and electrical signals derived from imaging of areas outside of marks; and

a computer ([0037]) programmed to derive the first and second codes from the electrical signals outputted by the imager (optical scanner).

Regarding claim 17, Miki discloses a method of marking a material comprising steps of:

forming respective human-readable characters (such as A, Chinese character 3, a circle, or a line) in respective areas (paper 12) on the part by applying respective arrays of machine-detectable marks (small dots) arranged in two-dimensional redundant bit patterns (two-dimensional configuration pattern), each of said respective arrays of machine-detectable marks having respective shapes indicative of the respective human-readable characters (A), and said two-dimensional redundant bit patterns comprising a repeating pattern of respective bit string (binary values) forming respective codes corresponding to each of said respective human-readable characters (A).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5, 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miki (JP 405334488A) in view of Thomas (US 4,263,504).

Regarding claims 5, 10, and 16 Miki discloses all the claimed features of the invention with the exception of specifically disclosing that said code is ASCII code.

Thomas discloses incorporating the ASCII coding scheme to represent alphanumeric characters (col. 6, ll. 42-48). As appreciated by an artisan having ordinary skill in the art, ASCII coding scheme is well known and conventionally used for coding alphanumeric characters up to 256 characters (extended ASCII codes) for communications among computing machines such as a computer.

In view of Thomas teaching, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to further employ the ASCII coding scheme in addition to the teachings of Miki due to the fact that increased acceptance of the coding system can be achieved for the purposes of expanding its applicability. Furthermore, such modification of employing the ASCII coding scheme to the teachings of Miki would have been an obvious matter of design variation, well within the ordinary skill in the art, and therefore an obvious expedient.

Allowable Subject Matter

8. Claims 18-20 are allowable.

Art Unit: 2876

9. Claims 3, 8, 13 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: after further search and thorough examination of the present application and in view of the Applicant's arguments and amendments, claims features recited in claims 3, 8, 13 and 14 appear to be allowable over the prior art made of record.

Response to Arguments

10. Applicant's arguments, see page 7, filed April 6, 2004, with respect to the rejection(s) of claim(s) 1-4, 7-9, 12-15, and 17-20 under 35 U.S.C. § 102 (b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Miki (JP 405334488A).

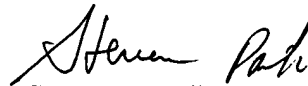
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven S. Paik whose telephone number is 571-272-2404. The examiner can normally be reached on Mon - Fri (5:30am-2:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 571-272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2876

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Steven S. Paik
Examiner
Art Unit 2876

ssp